

# General Installation Information

## 1. GMRA Namespace:

All components of this software begin with the letters GMRA.

## 2. Resource Requirements:

Adverse Reaction Tracking (ART) requires an estimated minimum of 0.7 megabytes of disk space to install.

There should be at least one terminal and one printer at each location where ART will be used.

The disk requirements are estimated as follows:

| <u>Globals</u>   | <u>Type of Data</u>                                       | <u>Size</u>  |
|--|---|--|
| GMRD(120.82,<br>GMRD(120.83,<br>GMRD(120.84,<br>GMRD(120.87, | Static data for ART                                       | 40K  |
| GMRD(120.8,<br>GMRD(120.85,<br>GMRD(120.86,                  | Patient data for ART<br>Observed, FDA<br>Patient NKA data | 0.4K per Allergy entry<br>0.4K per Reaction<br>0.01K per Patient |

## 3. Soft ware Requirements:

The following packages must be installed before installing Adverse Reaction Tracking:

| <u>Name</u>        | <u>Min. Ver.</u> |
|--------------------|------------------|
| Kernel             | 8.0              |
| MailMan            | 7.1              |
| VA FileMan         | 21               |
| MAS/PIMS           | 5.3              |
| National Drug File | 3.0              |

If this is not a virgin installation, the GMRA\*3\*13 patch must be installed. The patch portion of the version line of the GMRARAD1 routine must contain "13".

If your site is using the Progress Notes (v2.5) package, then GMRP\*2.5\*32 must be installed. This Progress Notes patch provides ART with a new interface to create progress notes.

**4 Files:**

a The Adverse Reaction Tracking package contains the following 7 files .

| Number | Name                        | Global         | Data Exported with Installation |
|--------|-----------------------------|----------------|---------------------------------|
| 120.8  | PATIENT ALLERGIES           | ^ GMR(120.8,   | NO                              |
| 120.82 | GMR ALLERGIES               | ^ GMRD(120.82, | YES                             |
| 120.83 | SIGN/SYMPTOMS               | ^ GMRD(120.83, | YES                             |
| 120.84 | GMR ALLERGY SITE PARAMETERS | ^ GMRD(120.84, | YES                             |
| 120.85 | ADVERSE REACTION REPORTING  | ^ GMR(120.85,  | NO                              |
| 120.86 | ADVERSE REACTION ASSESSMENT | ^ GMR(120.86,  | NO                              |
| 120.87 | GMRA DOCUMENT               | ^ GMRD(120.87, | YES                             |

b Files #120.82, #120.83 and #120.84 will add their data to the local system only when the file does not exist (Virgin Installation) or no data exists in the file. Appendix 1 of the Adverse Reaction Tracking User Manual contains a list of data entries exported with this version for File #120.82. Appendix 2 of the user manual contains a list of data entries exported with this version for File #120.83. File #120.87 is a new file and its data will be added to the system.

c Other DHCP files used by Adverse Reaction Tracking :

|                             |        |          |
|-----------------------------|--------|----------|
| New Person                  | 200    | Required |
| Generic Progress Note       | 121    |          |
| Generic Progress Note Type  | 121.1  |          |
| Generic Progress Note Title | 121.2  |          |
| Drug Ingredient             | 50.416 | Required |
| VA Drug Class               | 50.605 | Required |
| Protocol                    | 101    | Required |
| Title                       | 3.1    | Required |
| Patient                     | 2      | Required |
| National Drug File          | 50.6   | Required |

## 5. Installation Routines:

This version of the software uses the Kernel Installation and Distribution System (KIDS) to install the package. An environment check routine (GMRAENV) is used by Adverse Reaction Tracking to verify that all the needed packages have been installed. If the checks in the environment routine are satisfied, the package name in the PACKAGE (#9.4) file will change from GEN. MED. REC. -ALLERGIE S to ADVERSE REACTION TRACKING. Also, the SHORT DESCRIPTION (#2) and DESCRIPTION (#3) fields of File #9.4 will be updated.

Adverse Reaction Tracking uses a Pre- installation routine (GMRAEXPRE) to delete the ANKA cross reference which is no longer needed.

Adverse Reaction Tracking also uses post installation routines (GMRAEXPST and GMRAENKA) to update the Adverse Reaction Tracking database after the installation is completed by KIDS. Specifically, the post-installation does the following:

- a. Deletes the NO KNOWN ALLERGIES field (#.03) in the Patient Allergies file (#120.8),
- b. Moves those records which represent whether a patient has been asked about allergies (NKA nodes) from the Patient Allergies file (#120.8) to the Adverse Reaction Assessment file (#120.86),
- c. Converts the set of codes of the COMMENT TYPE sub-field (#1.5) of the COMMENTS multiple (#26) of the Patient Allergies file (#120.8) from old values to new values, and
- d. Creates the following mail groups if they do not already exist:
  - 1) GMRA MARK CHART
  - 2) GMRA VERIFY DRUG ALLERGY
  - 3) GMRA VERIFY FOOD ALLERGY
  - 4) GMRA VERIFY OTHER ALLERGY
  - 5) GMRA P&T COMMITTEE FDA
- e. Loops through File #121.2 and changes the ALLERGY/ADVERSE REACTION entry value to ADVERSE REACTION/ALLERGY.

- f Checks the file level security codes for Files #120.8-120.87 and changes the site's values to match what is in the KIDS Build.

**6 Test Site Installation Time s:**

| <u>Type of System</u> | <u># of records converted</u> | <u>Install Time</u> |
|-----------------------|-------------------------------|---------------------|
| Site #1 (Alpha)       | 16,309                        | 55 minutes          |
| Site #2 (Alpha)       | 11,957                        | 25 minutes          |
| Site #3 (Alpha)       | 5,464                         | 20 minutes          |
| Site #4 (Alpha)       | 13,069                        | 51 minutes          |
| Site #5 (MSM)         | 2,047                         | 14 minutes          |
| Site #6 (Alpha)       | 11,150                        | 34 minutes          |

## Installation Instructions

### 1. Preparation:

- We encourage you to back up your system before you install.
- Coordinate the installation with the package ADPAC.
- Schedule downtime with the users of the ART package. The installation will put the GMRA namespace options out-of-service for the duration of the install. The system does not have to be down during the installation.
- Make certain that patch GMRA\*3\*13 is installed. This is required by the environment check routine. The patch portion of the version line of the GMRARAD1 routine should contain a '13'.
- Disable mapping if applicable.
- Disable journaling if applicable.
- On MSM systems, the installation process will prompt you to move the package's routines to the other CPUs. If you inhibit logons to the CPUs receiving the routines you must shutdown TaskMan, otherwise the routines will not be moved.

### 2. Pre-Installation Tasks:

D ^XUP to establish programmer variables and set DUZ(0) for Programmer access. You will want to delete the old Adverse Reaction Tracking init routines. Select the routines with the GMA and GMRAI namespace. The following is an example:

```
>D ^%RDELETE
```

```
ROUTINE DELETE
```

```
routine(s) ? > GMA*
searching directory ...
routine(s) ? > GMRAI*
searching directory ...
routine(s) ? > <RET>
```

```
89 routines to DELETE, OK: NO// Y
```

```
GMAAI001 GMAAI002 GMAAI003 GMAAI004 GMAAI005 GMAAI006 GMAAI007 GMAAI008
GMAAI009 GMAAI00A GMAAIENV GMAAINI1 GMAAINI2 GMAAINI3 GMAAINI4 GMAAINI5
GMAAINIS GMAAINIT GMAAIPRE GMAAIPST GMABO001 GMABONI1 GMABONI2 GMABONI3
```

```

GMABONIT  GMACI001  GMACINI1  GMACINI2  GMACINI3  GMACINI4  GMACINI5  GMACINIS
GMACINIT  GMRAI001  GMRAI002  GMRAI003  GMRAI004  GMRAI005  GMRAI006  GMRAI007
GMRAI008  GMRAI009  GMRAI010  GMRAI011  GMRAI012  GMRAI013  GMRAI014  GMRAI015
GMRAI016  GMRAI017  GMRAI018  GMRAI019  GMRAI020  GMRAI021  GMRAI022  GMRAI023
GMRAI024  GMRAI025  GMRAI026  GMRAI027  GMRAI028  GMRAI029  GMRAI030  GMRAI031
GMRAI032  GMRAI033  GMRAI034  GMRAI035  GMRAI036  GMRAI037  GMRAI038  GMRAI039
GMRAI040  GMRAI041  GMRAI042  GMRAI043  GMRAI044  GMRAI045  GMRAI046  GMRAI047
GMRAI048  GMRAI049  GMRAINI0  GMRAINI1  GMRAINI2  GMRAINI3  GMRAINI4  GMRAINIS
GMRAINIT
Done.

```

The installation process updates the remaining GMRA routines and deletes some obsolete GMRA routines.

### 3. Installation:

- a This version of Adverse Reaction Tracking does **not** use DIFROM inits. Instead Adverse Reaction Tracking uses the KIDS utility. KIDS can install the package immediately or task it to run at a later time. You will again want to Do ^XUP and select the Kernel Installation & Distribution System option.

**NOTE:** The installation example dialogue that follows may vary depending on the system you have (Alpha or MSM) and the additional work that must be done in the pre and post installation process.

```
> D ^XUP
```

```
Setting up programmer environment
Terminal Type set to: C-VT320
```

```
Select OPTION NAME:  KERNEL INSTALLATION & DISTRIBUTION  XPD MAIN          Kernel
                     Installation & Distribution System
```

```

Edits and Distribution ...
Utilities ...
Installation ...

```

```
Select Kernel Installation & Distribution SystemOption:
```

- b Select the Installation menu option. Within the Installation menu you will select the Load a Distribution option. At the prompt "Enter a Host File:" enter the filename ALLR4.KID. ALLR4.KID is the Adverse Reaction Tracking KIDS Build. The following is an example of loading a distribution.

```
Select Kernel Installation & Distribution System Option:  INSTALLATION

Load a Distribution
Print Transport Global

```

Compare Transport Global to Current System  
 Verify Checksums in Transport Global  
 Install Package(s)  
 Restart Install of Package(s)  
 Unload a Distribution  
 Backup a Transport Global

Select Installation Option: **LOAD A DISTRIBUTION**  
 Enter a Host File: **ALLR4.KID**

KIDS Distribution saved on JAN 08, 1996@9:44:57  
 Comment: ADVERSE REACTION TRACKING V4.0

This Distribution contains Transport Globals for the following Package(s):  
 ADVERSE REACTION TRACKING 4.0

Want to Continue with Load? YES// **<RET>**  
 Loading Distribution...

Want to RUN the Environment Check Routine? YES// **<RET>**  
 Will first run the Environment Check Routine, GMRAXENV

Use ADVERSE REACTION TRACKING 4.0 to install this Distribution.

- c. You may wish to run the Verify Checksums in the Transport Global option at this point as a precaution. If there are any discrepancies, do not run the Install Package(s) option. Instead, run the Unload a Distribution option to remove the Transport Global from your system. Call your IRM Field Office and report the problem.
- d. Select the Install Package(s) option from the menu. The system will ask you the name of the package to be installed and the device to display the information as the installation progresses.

Load a Distribution  
 Print Transport Global  
 Compare Transport Global to Current System  
 Verify Checksums in Transport Global  
 Install Package(s)  
 Restart Install of Package(s)  
 Unload a Distribution  
 Backup a Transport Global

Select Installation Option: **INSTALL PACKAGES(S)**

Select INSTALL NAME: **?**

Answer with INSTALL NAME

Choose from:

ADVERSE REACTIONTRACKING 4.0            Loaded from Distribution

Select INSTALL NAME: **ADVERSE REACTION TRACKING 4.0**            Loaded from  
 Distribution

This Distribution was loaded on Jan 08, 1996@11:58:43 with header of

ADVERSE REACTION TRACKING V4.0 ;Created on Jan 08, 1996@09:44:57  
It consisted of the following Install(s):  
ADVERSE REACTION TRACKING 4.0

Will first run the Environment Check Routine, GMRAXENV

Install Questions for ADVERSE REACTION TRACKING 4.0

120.8 PATIENT ALLERGIES

Note: You already have the 'PATIENT ALLERGIES' File.

120.82 GMR ALLERGIES (including data)

Note: You already have the 'GMR ALLERGIES' File.  
Data will NOT be added.

120.83 SIGN/SYMPTOMS (including data)

Note: You already have the 'SIGN/SYMPTOMS' File.  
Data will NOT be added.

120.84 GMR ALLERGY SITE PARAMETERS (including data)

Note: You already have the 'GMR ALLERGY SITE PARAMETERS' File.  
Data will NOT be added.

120.85 ADVERSE REACTION REPORTING

Note: You already have the 'ADVERSE REACTION REPORTING' File.

120.86 ADVERSE REACTION ASSESSMENT

120.87 GMRA DOCUMENT (including data)

Want to DISABLE Scheduled Options and Options? YES// <RET>

**Note: If you are installing on an MSM system, you will be prompted to move the routines to other CPUs.**

Want to MOVE routines to other CPUs? NO// **YES**

Please enter the VOLUME SETS you want me to update.

Select Volume Set: **CSA**

Are you adding 'CSA' as a new VOLUME SET (the 1ST for this INSTALL)? **YES**

Select Volume Set: <RET>

Enter options you wish to mark as 'Out Of Order': <RET>

Delay Install (Minutes): (0-60): 0// <RET>

Enter the Device you want to print the Install messages.  
 You can queue the install by enter a 'Q' at the device prompt.  
 Enter a '^' to abort the install.

DEVICE: HOME// **HOME**

Install Started for ADVERSE REACTION TRACKING 4.0 :  
 Jan 08, 1996@15:30:04

Installing  
 Routines:.....  
 ..  
 Jan 08, 1996@15:30:13

Running Pre-Install Routine: ^GMRAXPRE.

Installing Data Dictionaries: .....  
 Jan 08, 1996@15:30:22

Installing Data:  
 Jan 08, 1996@15:30:22

Installing PACKAGE COMPONENTS:

Installing BULLETIN.....

Installing SECURITY KEY...

Installing PRINT TEMPLATE...

Installing SORT TEMPLATE..

Installing PROTOCOL...  
 Located in the GMRA (ADVERSE REACTION TRACKING) namespace..  
 Located in the GMRA (ADVERSE REACTION TRACKING) namespace..

Installing OPTION.....  
 Jan 08, 1996@15:30:39

Running Post-Install Routine: ^GRMAXPST.  
 Move 120.8 NKA Cross Reference to 120.86.....  
 The GMRA MARK CHART mail group has been added.  
 The GMRA VERIFY DRUG ALLERGY mail group has been added.  
 The GMRA VERIFY FOOD ALLERGY mail group has been added.  
 The GMRA VERIFY OTHER ALLERGY mail group has been added.  
 The GMRA P&T COMMITTEE FDA mail group has been added.  
 Updating File security on file 120.8.  
 Updating File security on file 120.82.  
 Updating File security on file 120.83.  
 Updating File security on file 120.84.  
 Updating File security on file 120.85.  
 Updating File security on file 120.86.  
 Updating File security on file 120.87.

The Progress Note Title of ALLERGY/ADVERSE REACTION with a note type of GENERAL NOTE has been changed to ADVERSE REACTION/ALLERGY.

Updating Routine file.....

Updating KIDS files.....

ADVERSE REACTION TRACKING 4.0 Installed.  
Jan 08, 1996@15:30:52

Install Message sent #1234

Waiting for job on VOLUME SET CSA to start.

Waiting for mob on VOLUME SET CSA to complete.

Job on VOLUME SET CSA Completed.

**Note: You will see this text only if you are installing the software on an MSM system and have told KIDS to move the routines to other CPUs.**

**Implementation:**

- Move the GMRA\* namespaced routines onto all your systems, if applicable.
- Enable journaling, if applicable.
- The following global is recommended for journaling:  
    ^ GMR
- For multiple CPUs the following globals must be translated:  
    ^ GMR  
    ^ GMRD
- Enable routine mapping if applicable.
- Use the KIDS Build File Print option if you wish to obtain a complete listing of package components (e.g., routines and options) sent with this software.
- Use the KIDS Install File Print option if you wish to print out the results of the installation process.

- The following are new protocols which are distributed with this version:

GMRA RECEIVE - Will be used by CPRS (ORDER ENTRY) V3.0 to send an Allergy/Adverse Reaction entry in an HL7 message format to the ART database.

- Other packages can ‘hang’ their protocols off the following protocols to perform necessary tasks when these events occur.

GMRA ENTER IN ERROR - When a user marks a reaction as ‘entered-in- error’, this extended action protocol is invoked.

GMRA MEDWATCH DATA COMPLETE - When the P&T Committee completes and indicates that an FDA MEDWatch Form has been sent for a reaction, this extended action protocol is invoked.

GMRA SIGN-OFF DATA - When a user signs off on (i.e., completes) a reaction(s) for a patient, this extended action protocol is invoked.

GMRA VERIFY DATA - When a user verifies a patient reaction, this extended action protocol is invoked.

- Use the Enter/Edit Site Parameters [GMRA SITE FILE] option to update two new parameters in the GMR ALLERGY SITE PARAMETERS file (#120.84):

NEW ADMISSION CHART MARK (#7.3) - A YES/NO response to indicate if the site wants to send a chart mark bulletin for a new admission.

E/E DESCRIPTION ACTIVE (#10.1) - A YES/NO response which permits the user to indicate why a reaction was entered in error.

- Refer to the Adverse Reaction Tracking Technical Manual for instructions on implementing and maintaining Adverse Reaction Tracking .
- Note: The SACC has granted several exemptions. If you run the %INDEX utility on the GMRA\* routines, you will see many fatal type errors which are not really a cause for concern. See the SACC Exemptions chapter in the Adverse Reaction Tracking Technical Manual for a list of the exemptions.

## Virgin Installation

### 1. Preparation:

- We encourage you to back up your system before you install. The system does not have to be down during the installation.
- Coordinate the installation with the package ADPAC.
- Disable mapping if applicable.
- Disable journaling if applicable.
- On MSM systems, the installation process will prompt you to move the package's routines to the other CPUs. If you inhibit logons to the CPUs receiving the routines you must shutdown TaskMan, otherwise the routines will not be moved.

### 2. Installation:

This version of Adverse Reaction Tracking does **not** use DIFROM inits. Instead Adverse Reaction Tracking uses the KIDS utility. KIDS can install the package immediately or task it to run at a later time. You will want to Do ^XUP and select the Kernel Installation & Distribution System option.

**NOTE:** The installation example dialogue that follows may vary depending on the system you have (Alpha or MSM) and the additional work that must be done in the pre and post installation process.

This section contains an example of a virgin installation of the software. This example assumes TaskMan is running.

```
Select OPTION NAME:      XPD MAIN          Kernel Installation & Distribution
System
```

```
Edits and Distribution ...
Utilities ...
Installation ...
```

```
Select Kernel Installation & Distribution System Option:  INSTALLATION
```

```
Load a Distribution
Print Transport Global
Compare Transport Global to Current System
```

Verify Checksums in Transport Global  
 Install Package(s)  
 Restart Install of Package(s)  
 Unload a Distribution  
 Backup a Transport Global

Select Installation Option: **LOAD A DISTRIBUTION**  
 Enter a Host File: **ALLR4.KID**

KIDS Distribution saved on Jan 12, 1996@09:42:08  
 Comment: ADVERSE REACTION TRACKING V4.0

This Distribution contains Transport Globals for the following Package(s):  
 ADVERSE REACTION TRACKING 4.0

Want to Continue with Load? YES// **<ret>**  
 Loading Distribution...

Will first run the Environment Check Routine, GMRAXENV

Use ADVERSE REACTION TRACKING 4.0 to install this Distribution.

**You may wish to run the Verify Checksums in the Transport Global option at this point as a precaution. If there are any discrepancies, do not run the Install Package(s) option. Instead, run the Unload a Distribution option to remove the Transport Global from your system. Call your IRM Field Office and report the problem.**

Load a Distribution  
 Print Transport Global  
 Compare Transport Global to Current System  
 Verify Checksums in Transport Global  
 Install Package(s)  
 Restart Install of Package(s)  
 Unload a Distribution  
 Backup a Transport Global

Select Installation Option: **INSTALL PACKAGES(S)**  
 Select INSTALL NAME: **ADVERSE REACTION TRACKING 4.0**                      Loaded from  
 Distribution

This Distribution was loaded on Jan 31, 1996@09:07:08 with header of  
 ADVERSE REACTION TRACKING V4.0 ;Created on Jan 31, 1996@09:05:59  
 It consisted of the following Install(s):  
 ADVERSE REACTION TRACKING 4.0

Will first run the Environment Check Routine, GMRAXENV

Install Questions for ADVERSE REACTION TRACKING 4.0

120.8        PATIENT ALLERGIES

120.82      GMR ALLERGIES (including data)

- 120.83 SIGN/SYMPTOMS (including data)
- 120.84 GMR ALLERGY SITE PARAMETERS (including data)
- 120.85 ADVERSE REACTION REPORTING
- 120.86 ADVERSE REACTION ASSESSMENT
- 120.87 GMRA DOCUMENT (including data)

Want to DISABLE Scheduled Options and Options? YES// <ret>

Enter options you wish to mark as 'Out Of Order': <ret>

Delay Install (Minutes): (0-60): 0// <ret>

Enter the Device you want to print the Install messages.  
 You can queue the install by enter a 'Q' at the device prompt.  
 Enter a '^' to abort the install.

DEVICE: HOME// <ret> HOME

Install Started for ADVERSE REACTION TRACKING 4.0 :  
 Jan 31, 1996@09:07:46

Installing Routines  
 .....  
 .....  
 Jan 31, 1996@09:07:51

Running Pre-Install Routine: ^GMRAXPRE

Installing Data Dictionaries: .....  
 Jan 31, 1996@09:08

Installing Data: ....  
 Jan 31, 1996@09:08:07

Installing PACKAGE COMPONENTS:

Installing BULLETIN.....

Installing SECURITY KEY...

Installing PRINT TEMPLATE...

Installing SORT TEMPLATE..

Installing PROTOCOL...  
 Located in the GMRA (ADVERSE REACTION TRACKING) namespace..  
 Located in the GMRA (ADVERSE REACTION TRACKING) namespace..  
 Located in the GMRA (ADVERSE REACTION TRACKING) namespace..



- Use the KIDS Install File Print option if you wish to print out the results of the installation process.

- The following are new protocols which are distributed with this version:

GMRA RECEIVE - Will be used by CPRS (ORDER ENTRY) V3.0 to send an Allergy/Adverse Reaction entry in an HL7 message format to the ART database.

- Other packages can 'hang' their protocols off the following protocols to perform necessary tasks when these events occur.

GMRA ENTER IN ERROR - When a user marks a reaction as 'entered-in- error', this extended action protocol is invoked.

GMRA MEDWATCH DATA COMPLETE - When the P&T Committee completes and indicates that an FDA MEDWatch Form has been sent for a reaction, this extended action protocol is invoked.

GMRA SIGN-OFF DATA - When a user signs off (i.e., completes) on a reaction(s) for a patient, this extended action protocol is invoked.

GMRA VERIFY DATA - When a user verifies a patient reaction, this extended action protocol is invoked.

- Refer to the Adverse Reaction Tracking Technical Manual for instructions on implementing and maintaining Adverse Reaction Tracking . You will definitely want to run the Enter/Edit Site Parameters option to customize the software to your site's needs.

Department of Veterans Affairs  
Decentralized Hospital Computer Program

# **ADVERSE REACTION TRACKING INSTALLATION GUIDE**

Version 4.0

March 1996

Information Resource Management Field Office  
Hines, Illinois